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The Incompatibility of Materialism and the Desire for Children: Psychological Insights into the Fertility Discrepancy Among Modern Countries

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Abstract We examined factors related to attitudes toward marriage and the importance of having children in both the US and Singapore. Path analysis indicated that life dissatisfaction leads to materialism, and both of these factors lead to favorable attitudes toward marriage, which leads to greater desire for children. Further analysis indicated this model was effective in explaining the difference in desire for children between Singaporeans and Americans, whereby Singaporeans have lower life satisfaction, higher materialism, and lower attitudes toward marriage and children. Materialistic standards of success were also related to the emphasis women placed on potential marriage partners' earning capacity. As Singaporean women had higher materialistic standards, they also placed higher emphasis on potential mates' earning capacity. Results suggest a consideration of psychological variables such as life satisfaction, materialism, and mate preferences may lead to a better understanding of larger-scale socioeconomic issues, including low fertility rates among developed East Asian countries.

Keywords Materialism · Life satisfaction · Mate preferences · Marriage · Children · Cross-cultural

1 Introduction

A large portion of inter-country variation in fertility rates is related to differences in economic development—people in less developed countries tend to reproduce at higher rates than those in wealthier countries (e.g., Lee 2003). Nevertheless, significant differences in fertility rates still occur among countries with similar levels of economic development. For instance, out of 229 countries, Singapore and the United States ranked 9th and 10th, respectively, on gross domestic product per capita (Country Comparison:

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GDP—Per capita (PPP) 2009). However, the total fertility rate for Singapore (1.09) is nearly the lowest in the world and only about half that of the US (2.05; Country Comparison: Total Fertility Rate 2009). Why is the fertility rate of Singapore (and more generally, all East Asian countries) so low, even when compared to industrialized nations such as the United States? Although this question has received significant attention from population researchers (e.g., Bongaarts 2001; Jones et al. 2009; McDonald 2000), less is known from a psychological perspective. In the current study, we examined related constructs—the desire for children and attitudes toward marriage—by drawing from findings in the literature on materialism. In doing so, we investigated the possibility that materialism is a factor underlying the importance that women place on a potential mate's earning capacity and individuals' attitudes toward marriage and children and thus, the different levels of fertility observed in modern societies—in particular, the United States and Singapore.

1.1 Low Fertility in East Asia

In recent years, fertility rates in East Asian countries (Hong Kong, Japan, Singapore, South Korea, and Taiwan) have dropped below levels required to sustain populations and demographic profiles over time. These trends have been recognized by the countries' respective governments, as evidenced by ongoing efforts in each country to promote marriage and reproduction (e.g., Greenspan 1994; Jones et al. 2009; Thang 2005). In researching the low fertility trends, demographer McDonald (2000, 2006, 2009) identified two broad structural factors: economic restructuring and social liberalism.

In recent years, globalization of labor markets has decreased job stability in numerous industries. In response to increasing financial risk, people have delayed starting families to make greater investments in human capital (i.e., education and work experience). Compared to families and related social structures, there is more gender equity in educational institutions and industry, where women can independently achieve status and economic power. Indeed, a steadily increasing percentage of individuals pursuing education and work experience have been women (Global employment trends for women: March 2008). Thus, in modern societies, increasing job risk and economic opportunities for women outside the home have resulted in greater opportunity costs associated with getting married and having children. This may be especially true in East Asia, where families are more patriarchal (e.g., Martin 1990) and marriage tends to be equated with procreation (e.g., Shirahase 2000). Thus, in East Asian countries, the opportunity costs of marriage and children may be especially large and women may be more reluctant to marry and have children than in Western societies (McDonald 2000, 2006).

1.2 Materialism, Life Satisfaction, Marriage, and Children

At the same time, globalization of consumer markets has brought about an unprecedented variety of luxury goods, thereby fueling further demand for disposable income (e.g., Kasser et al. 2007). However, valuing and striving to acquire material possessions—activities that underlie modern economies (Fromm 1976; Leach 1993)—can require significant time and effort, thereby leaving less room for other endeavors (Myers 1999; Solberg et al. 2004). More generally, materialism may compete with other values (Burroughs and Rindfleisch 2002), including having close, interpersonal relationships (Kasser et al. 2007). Indeed, those who are more materialistic and value financial goals place less value on affiliative goals (Kasser and Ryan 1993; Zhou and Gao 2008), relational warmth (Richins and

Dawson 1992), and close relationships (Burroughs and Rindfleisch 2002), and have more conflicts with friends and romantic partners (Kasser and Ryan 2001) and less satisfaction with family life (Nickerson et al. 2003). As such, we would expect materialistic values to be at odds with positive attitudes toward marriage and a desire for (costly) children.

An important factor that may be related to both materialism and marriage attitudes is life satisfaction. First, those who feel satisfied with life may view marriage in a more favorable light than those who are unsatisfied. In fact, people with higher life satisfaction are more likely to become married and stay married (Lucas and Clark 2006; Lucas et al. 2003). Although happy people may be more attractive mates, and this may be driving the selection effects, another possibility is that happy people are more optimistic about marriage and therefore more willing to “take the plunge.” Indeed, happy people are more optimistic in general about positive events, including their chances of getting married (even to someone rich) and staying married (Lench 2009; Taylor and Brown 1988; Weinstein 1980).

Second, there is a consistently negative relationship between life satisfaction and materialism. Materialists are less satisfied with their lives (Richins and Dawson 1992; Wright and Larsen 1993), are unhappier (Belk 1985), and have lower levels of mental health (Kasser and Ryan 1993) than non-materialists. Evidence also suggests that materialism may be a coping response for a variety of psychological ills and setbacks (see Zhou and Gao 2008) including social rejection (Mead et al. 2008) and perceived inadequacies in various social domains (Solberg et al. 2004). Thus, dissatisfaction with life is also associated with and may contribute to materialism.

Life satisfaction may also be related to the desire for children. Although some studies (Burman and de Anda 1985; Veenhoven 1974) found no differences in life satisfaction among voluntary childless individuals and parents, at least one study reported that voluntarily childless couples viewed life as less optimistic, less loving, and less satisfying (Callan 1986). The desire for fewer children among unhappy individuals is consistent with the finding that fear increases perceptions of risk (Lerner and Keltner 2001)—individuals with low life satisfaction may be uncertain of their ability to raise children and cope with parenthood. In contrast, individuals with higher levels of well-being frequently report a greater sense of competence and control over their lives (Myers and Diener 1995; Reis et al. 2000), which should foster confidence in many life endeavors, including raising children.

In recent years, Asian consumers have become a large part of the total demand for luxury goods. Exceeding the United States and Europe combined, Asia accounts for more than 50% of the 80 billion dollar market for luxury goods (Chadha and Husband 2007). In Singapore, shopping is sometimes referred to as the national past time (e.g., Biston 2007) and success is commonly defined as having the “5 C’s”: cash, credit card, car (where the sales tax on automobiles is near 200%), condominium, and country club membership (5 C’s of Singapore 2004). In addition, compared to other developed nations, East Asian countries tend to have relatively low levels of happiness and life satisfaction (e.g., Diener and Diener 1995; Kang et al. 2003; Veenhoven 2008). Thus, compared to the United States, life satisfaction may be lower and materialism may be higher in East Asian countries. Indeed, this seems to be the case in Singapore (Swinyard et al. 2001).

1.3 Materialism and Mate Choice

Materialism may also affect other processes related to marriage, including mate selection. When considering potential marriage partners, men place a higher value on physical attractiveness than women do, whereas women place a higher value on social status and

resources (e.g., Buss and Barnes 1986; Fletcher et al. 2004; Hill 1945; Li et al. 2002; McGinnis 1958; Sprecher et al. 1994). These findings have tended to hold up across numerous countries and cultures (e.g., Buss 1989; Buss et al. 1990).

A person who values material possessions may place higher value on the monetary compensation of his or her own career (Cable and Judge 1993). In addition, at least two factors suggest that materialistic women may place a higher emphasis on a potential mate's earning power. First, because materialistic women likely anticipate higher incomes in their own careers, they may want a mate who earns a similarly high or higher salary. This would be consistent with research indicating that women tend to require that a man's socioeconomic status exceeds her own (e.g., Townsend 1989; Udry 1981; Wiederman and Allgeier 1992). Second, although women in modern societies can independently attain self-sufficiency, due to biological constraints (childrearing) and remaining structural constraints (e.g., sex-based discrimination), women may in practice still need to rely on men for their income requirements (e.g., Eagly and Wood 1999). Because neither of these factors apply to men, we would not expect men's requirements for socioeconomic status in a partner to be related to men's materialism.

1.4 The Current Study

Based on our review, we reasoned that the desire for children is linked to one's valuation of marriage, which itself is affected by materialism and life satisfaction. In addition, materialism may be related to women's—but not men's—requirements for socioeconomic status in a potential marriage partner. By explaining such factors, our models may be useful in addressing the issue of widely differing fertility rates between modern countries such as the US and Singapore. Specifically, differences in the desire for children and mating standards may in part be driven by differences in materialism and life satisfaction between the countries. Thus, we examined materialism as a factor underlying mate preferences and attitudes toward marriage and children, and whether a materialism-based model can be useful in explaining differences in psychological variables related to fertility rates for the US versus Singapore. We predicted the following:

1. Between-country differences in relevant psychological variables: (a) Reflecting differences in total fertility rates and gender equity at the workplace compared to in marriages, Singaporeans will have a lower desire for children and for marriage than Americans; (b) Consistent with recent trends in consumer spending and previous research, Singaporeans will have higher levels of materialism and (c) lower levels of life satisfaction.
2. An *Incompatibility of Materialism and Children* path model that (a) specifies how these variables are related: the extent to which people are satisfied with life and derive happiness from material goods should influence their attitudes toward marriage, which should influence their desire for children; and (b) can explain inter-country differences in attitudes toward children: Singaporeans' lower desire for children is partly attributable to having higher levels of materialism and lower levels of life satisfaction than Americans.
3. Materialism's impact on women's mate preferences: (a-1) Singaporean women will have higher material-based standards of social status than American women and (a-2) place higher emphasis on economic resources in potential mates than American women; (b) for women in general, material-based standards of social status should translate into a higher importance placed on a potential marriage partner's earning capacity.

2 Methods

To examine these ideas, we collected data on materialism, life satisfaction, attitudes toward marriage, desire for children, and mate preferences in both the United States and Singapore. The data from the two countries were analyzed together, with country and subject sex as between-subjects variables.

2.1 Participants

Participants ($n = 407$) were 207 undergraduates taking introductory psychology at a large Midwestern university and 200 undergraduates taking psychology courses at a major university in Singapore. In the US, there were 124 women (age: $M = 19.16$, $SD = 2.04$) and 83 men (age: $M = 19.72$, $SD = 2.91$). Ethnically, 77.8% were Caucasian, 13.5% Black, 4.3% Hispanic, 2.4% Asian, and 2% other. In Singapore, there were 126 women (age: $M = 20.90$, $SD = 1.22$) and 74 men (age: $M = 22.54$, $SD = 1.87$), whereby 83% were ethnically Chinese, 7.5% Indian, 2.5% Vietnamese, 1.5% Malay, and 5% other.

2.2 Procedure and Materials

Participants filled out a packet of surveys that included the following instruments.

2.2.1 Attitudes Toward Marriage

To measure attitudes toward marriage, we modified a previous version (Salts et al. 1994) of the Favorableness of Attitudes Toward Marriage Scale (Hill 1951). We used a 5-point Likert-type scale (e.g., 1 = not at all difficult, 5 = very difficult) for the first seven of the nine items (e.g., “In your opinion, would adjustment to married life be difficult for you?”; $\alpha = .83$) and the original 2-point answer scale (e.g., 1 = no, 2 = yes) for the remaining two items. Appropriate items were reverse-scored and a total score was computed for each participant.

2.2.2 Desire for Children

We measured desired for children with a face-valid item: “Having children of my own (at some point) is important to me” (1 = strongly disagree, 7 = strongly agree).

2.2.3 Materialism

We measured materialism with the Richins and Dawson (1992) scale. In particular, we used (a) the *possession-defined success* subscale (e.g., “Some of the most important achievements in life include acquiring material possessions”; $\alpha = .80$) to capture a material-based standard of social status in relation to mate preferences and (b) the *acquisition as the pursuit of happiness* subscale (“I’d be happier if I could afford to buy more things”; $\alpha = .79$) to capture a materialism-based concept of happiness in relation to marriage attitudes.¹ Items asking for demographic information appeared at the end of the survey packets.

¹ We used particular subscales of the Richins and Dawson (1992) materialism scale rather than the overall composite because the subscales more precisely matched our hypothesized constructs. However, similar results were also obtained using the composite.

2.2.4 Life Satisfaction

We used the Satisfaction With Life Scale (Diener et al. 1985) to measure life satisfaction (e.g., “I am satisfied with my life”; $\alpha = .85$).

2.2.5 Mate Preferences

For mate preferences, we used the survey from Buss and Barnes (Buss and Barnes 1986; Study 2), which asks participants to rank 13 characteristics in terms of their “desirability in someone you might marry”.

3 Results

3.1 Attitudes Toward Marriage and Desire for Children

Using SPSS General Linear Model (GLM), we analyzed people’s desire for children. With country and subject sex as between-subjects variables, there was only an effect of country, $F(1, 403) = 9.95$, $p = .002$, whereby Americans considered having children to be more important ($M = 6.22$, $SD = 1.21$) than Singaporeans did ($M = 5.79$, $SD = 1.48$). For scores on the modified Favorable Attitudes Toward Marriage instrument, there was also only an effect of country, $F(1, 403) = 44.22$, $p < .001$, whereby Americans reported more favorable attitudes toward marriage ($M = 30.75$, $SD = 4.56$) than Singaporeans did ($M = 27.47$, $SD = 5.13$). These results directly supported prediction 1a.

3.2 Materialism

Analyzing the overall materialism index via GLM produced a country \times sex interaction, $F(1, 403) = 4.41$, $p = .036$. In the US, women reported less materialism ($M = 3.74$, $SD = 0.57$) than men did ($M = 4.07$, $SD = 0.63$). In contrast, Singaporean women indicated equally similarly high materialism ($M = 3.98$, $SD = 0.55$) as Singaporean men ($M = 4.01$, $SD = 0.67$). A similar pattern was found in the subscales of interest. For possession-defined success, a GLM produced a country \times sex interaction, $F(1, 403) = 7.21$, $p = .008$. In the US, women reported less possession-defined success ($M = 3.39$, $SD = 0.74$) than men did ($M = 3.90$, $SD = 0.79$). In contrast, Singaporean women indicated equally similarly high possession-defined success ($M = 3.90$, $SD = 0.70$) as Singaporean men ($M = 4.01$, $SD = 0.79$). For acquisition as the pursuit of happiness, a GLM indicated an effect of country, $F(1, 403) = 14.18$, $p < .001$, as Singaporeans’ happiness depended more on acquiring material objects ($M = 4.12$, $SD = 0.82$) than Americans’ ($M = 3.81$, $SD = 0.83$). An effect of sex, $F(1, 403) = 16.09$, $p < .001$, reflected that men’s happiness ($M = 4.13$, $SD = 0.81$) was more acquisition dependent than women’s ($M = 3.80$, $SD = 0.83$). Thus, the pattern of results for materialism were consistent with predictions 1b and 3a-1.

3.3 Life Satisfaction

A GLM on the Satisfaction with Life Scale yielded an effect of country, $F(1, 403) = 27.501$, $p < .001$. Singaporeans reported lower life satisfaction ($M = 21.91$, $SD = 6.04$) than Americans did ($M = 25.08$, $SD = 5.91$). An effect of sex, $F(1, 403) = 27.501$, $p < .001$,

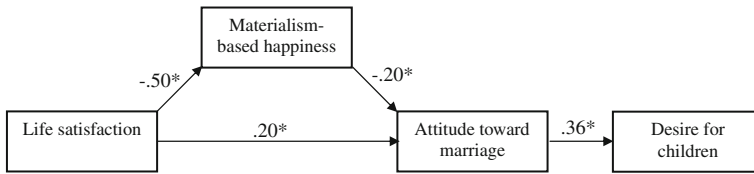


Fig. 1 The incompatibility of materialism and children model. $\chi^2 = 2.16$, $p = .34$, $CFI = 1.00$, $RMSEA = .01$, $LL = .00$, $UL = .08$, $SRM = .02$

reflected that women were somewhat more satisfied ($M = 24.15$, $SD = 5.66$) than men ($M = 22.84$, $SD = 6.78$). Thus, results were consistent with prediction 1c.

3.4 Incompatibility of Materialism and Children

Next, we tested the Incompatibility of Materialism and Children model (prediction 2a) via path analysis. We had hypothesized that for young adults, material-based happiness and life satisfaction would predict attitudes toward marriage, which should influence attitudes toward having children. Because life dissatisfaction may contribute to obtaining happiness through materialism (e.g., Solberg et al. 2004), we also specified a path from life satisfaction to material-based happiness. The model, shown in Fig. 1 with standardized regression coefficients for each path, is an adequate fit to the data, $\chi^2(2) = 2.16$, $p = .34$, $CFI = 1.00$, $RMSEA = .01$, 95% CI $LL = .00$, $UL = .08$, $SRM = .02$.²

We then expanded the model by having country be an exogenous variable leading to both materialism and life satisfaction. The model, shown in Fig. 2 with standardized regression coefficients for each path, is an adequate fit to the data, $\chi^2(2) = 3.28$, $p = .35$, $CFI = 1.00$, $RMSEA = .02$, 95% CI $LL = .00$, $UL = .08$, $SRM = .02$. The relationship between country and attitudes towards having children was mediated by attitudes towards marriage.³ Specifically, Americans had a more positive attitude towards marriage, resulting in a more positive attitude towards having children. The relationship between country and attitude about marriage was partially mediated by both materialism-based happiness and life satisfaction. Compared to Americans, Singaporeans reported higher materialism-based happiness and lower life satisfaction, both of which related to less favorable attitudes towards marriage. Thus, consistent with prediction 2b, differences in attitude toward children between the United States and Singapore were in part due to the effect of differences in materialism-based happiness and life satisfaction between the two countries on attitudes toward marriage.

3.5 Marriage Partner Characteristics

Table 1 shows the desirability rankings of the 13 marriage-partner mate preference traits by sex within country. Consistent with surveys from the past several decades, people of both

² When evaluating a path model, a non-significant χ^2 value indicates that the model adequately fits the data.

³ In both models displayed in Figs. 1 and 2 we have omitted certain paths (e.g., in Fig. 1 we omit the direct relationships from both materialism and life satisfaction to desire for children). We do this because our theory suggests that these relationships are mediated by attitude towards marriage. Also, if we included all possible paths in the model then we would have a saturated model (no degrees of freedom), which cannot be statistically tested for its fit with the data.

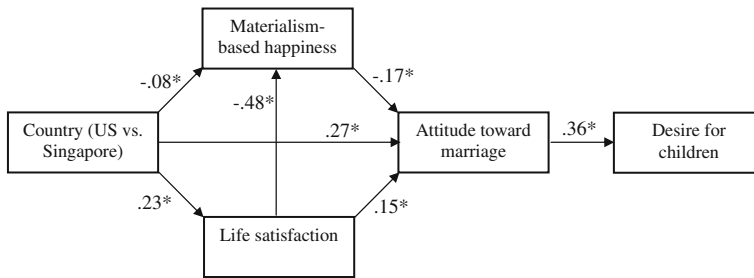


Fig. 2 Mediation model of between-country differences in attitudes toward children. $\chi^2 = 3.28$, $p = .35$, $CFI = 1.00$, $RMSEA = .02$, $LL = .00$, $UL = .08$, $SRM = .02$ Note: For coding of Country—Singapore = 0, US = 1

countries rated kindness as the most desirable trait. Also consistent with past surveys and predicted sex differences, men ranked physical attractiveness higher than women did, whereas women ranked college graduate higher than men did. In Singapore, good earning capacity was rated higher by women than by men. In the US, women considered religiosity to be more desirable than men did. Comparing between countries, American men considered an exciting personality to be more desirable than Singaporean men did, whereas Singaporean men considered kindness and religiosity to be more important. American women valued physical attractiveness, an exciting personality, and a desire for children more than Singaporeans did, whereas Singaporean women placed a somewhat higher value on good heredity and, consistent with prediction 3a-2, a much higher value on earning capacity.

Next, we examined if Singaporean and American women's differing preferences for a mate's earning capacity are mediated by differences in materialism-based concepts of success. To do so, we used the analytic strategy for testing moderated mediation models outlined by Preacher et al. (2007). In our model, the relationship between country and the importance of good earning prospects is mediated by the extent to which success is defined by materialism, and this mediation process is moderated by sex. That is, the path from country (independent variable) to importance of earning capacity (dependent variable) goes through materialism-defined success (mediator) and should apply to women but not men. In specifying the model, we allowed participant sex to potentially moderate the relationship between country and materialism-defined success as well as the relationship between materialism-defined success and preferences for earning capacity. Sex significantly moderated the path from country to materialism-defined success, $t = 4.58$, $p < .001$. No additional interaction was found when materialism-defined success predicts earning prospects in mate preferences. For women, the conditional indirect effect of country on preference for mate earnings through materialism-defined success was significant, $\beta = .36$, $p = .009$. In contrast, the conditional indirect effect was nonsignificant for men, $\beta = .05$, $p = .49$. These results show the presence of moderated mediation and support prediction 3b. Singaporean women's stronger preference for a mate with good earning potential is in part due to a greater emphasis on materialism in their concept of success.

4 Discussion

Results of the study supported our predictions. Compared to Americans, Singaporeans reported greater materialism, lower levels of life satisfaction, and lower desire for children

Table 1 Desirability rankings of mate preferences in the United States and Singapore

	United States			Singapore			Difference (US—Singapore)			
	Men	Women	<i>t</i>	Men	Women	<i>t</i>	Men	<i>t</i>	Women	<i>t</i>
Kind and understanding	3.41	2.87	-1.31	2.36	2.57	0.62	1.04	-2.51*	0.30	-0.90
Physically attractive	3.99	6.44	6.42***	4.66	7.50	7.27***	-0.67	1.88	-1.06	2.88***
Exciting personality	4.19	4.23	0.08	5.68	5.59	-0.18	-1.48	2.76**	-1.36	3.40***
Intelligent	4.47	4.56	0.25	4.92	4.40	-1.30	-0.45	1.09	0.16	-0.47
Easygoing	5.25	6.03	1.81	5.61	6.04	0.94	-0.36	0.73	-0.01	0.02
Healthy	5.51	5.64	0.34	5.31	4.97	-0.85	0.20	-0.44	0.67	-1.95
Wants children	7.92	7.02	-1.93	8.22	9.02	1.77	-0.30	0.62	-1.99	4.85***
Creative and artistic	8.48	9.19	1.54	8.97	9.25	0.65	-0.49	0.99	-0.06	0.16
College graduate	8.78	7.48	-3.07**	9.45	7.94	-3.44***	-0.66	1.59	-0.46	1.14
Good earning capacity	9.11	8.44	-1.76	8.90	5.33	-8.69***	0.20	-0.46	3.11	-9.07***
Good heredity	9.49	9.85	0.93	9.05	9.08	0.06	0.44	-1.00	0.77	-2.19*
Good housekeeper	9.66	10.03	1.00	9.16	9.59	1.07	0.50	-1.14	0.44	-1.35
Religious	10.46	8.86	-2.79	8.65	9.16	0.75	1.81	-2.82**	-0.30	0.51

Notes: Lower numbers indicate higher rank-ordered desirability

Positive *t*-scores indicate higher rank-ordered desirability for men than women and for the US than Singapore

* $p < .05$; ** $p < .01$; *** $p < .001$

and marriage. Through an Incompatibility of Materialism and Children path model, we suggested that these variables were related in a specific manner: the extent to which people are satisfied with life and derive happiness from material goods should influence their attitudes toward marriage, which in turn should influence their desire for children. The model fit the data adequately and was also effective in explaining inter-country differences in attitudes toward children. That is, Singaporeans' lower desire for children may in part be attributable to having higher levels of materialism and lower levels of life satisfaction and thus, lower desire for marriage and for children.

We also found evidence that materialistic standards of success may impact the importance that women—but not men—place on a potential marriage partner's earning potential. Because Singaporean women have more materialistic standards, they placed a higher emphasis on a marriage partner's potential resources than did American women. From an economic exchange perspective (e.g., Blau 1964; Hatfield et al. 1979), marriage involves a competitive market process whereby individuals put their own qualifications on offer while attempting to obtain the best set of traits in a mate. In economic markets, any factor that causes either buyers or sellers to expect more initially widens the buyer-seller gap and decreases the number of potential transactions until the other side adjusts. Thus, as our study suggests, if materialism increases women's requirements for a potential marriage partner's income or status, then fewer individuals should be able to find suitable matches until men are able to meet those requirements. Less satisfaction in the romantic relationship domain for both sexes and a demand for men to increase their education and income may lead to further materialism on both sides, and thus, a perpetual cycle.

The current research replicated previous findings, including the relationship between materialism and life satisfaction (e.g., Richins and Dawson 1992) and lower levels of life satisfaction and higher materialism in Asian countries (e.g., Diener and Diener 1995; Swinyard et al. 2001; Veenhoven 2008), indicated new ones, and proposed causal pathways for these variables. Taken together with the work of others, our study links people's desire for children to their materialistic values and thereby suggests that materialism, together with life satisfaction, may psychologically underlie part of the disparity in fertility rates among modern nations. Specifically, differences between the levels of materialism and life satisfaction in the United States and Singapore could help to explain why the fertility rate in Singapore is currently about half that of the United States and well below the level needed to sustain its population. This finding also underscores the potential utility of materialism in explicating cross-cultural and cross-national differences. Previous research in cross-cultural psychology has emphasized broad cultural dimensions such as individualism and collectivism (Hofstede 2001; Triandis 1995) as well as economic indicators such as GDP per capita (Diener et al. 1995). Note that neither of these variables seems to account for the difference in fertility rates between Singapore and the United States. First, both countries are roughly equal in terms of economic development. Second, one might expect a greater desire for children (and hence a higher fertility rate) in Singapore, given that it is less individualistic (and purportedly more collectivistic) than the United States (Hofstede 2001). Instead, the present study observed just the opposite.

More generally, our study examined distinct areas of research and suggests that such areas can be considered in tandem to gain insight into the socioeconomic issues of the modern world. Such issues have been addressed by sociologists, demographers, and economists, but less so by social psychologists. More integration whereby such disciplines draw from research in areas such as mating, positive psychology, as well as consumer psychology may be necessary to fully understand the increasingly complex social dynamics of the modern world.

4.1 Limitations and Future Directions

Singapore is largely a metropolis and our US sample, although obtained from a university within 65 miles of downtown Chicago, is not equally urban. It is possible that in larger US cities such as New York or Los Angeles, materialism would be higher and attitudes toward children and marriage lower, thereby lessening or even eliminating inter-country differences on these variables. Thus, in future research, population density should be taken into account and a wider sample of East Asian countries should be examined. Also, our samples consisted of college students who, compared to working adults, may not be actively making decisions concerning consumer goods versus marriage and family. Thus, to test the generalizability of the Incompatibility of Materialism and Children model, non-student populations and countries outside of East Asia, including European countries, should also be studied.

We employed path analyses on survey data to investigate directional predictions. To obtain greater confidence in the specified causal relationships, other methods, including experimental ones, should be used. For instance, materialism can be primed and attitudes toward marriage and desire for children subsequently obtained. We would expect the presence of luxury goods to lead to greater status-seeking behavior and, for women, increased importance of a potential mate's income, accompanied by decreased interest in marriage and children. This may especially be true for individuals whose happiness depends on acquiring material goods or whose standards of success are based on materialism.

Although we have proposed that life dissatisfaction leads to materialism, materialistic values may ultimately be unsatisfying and thus lead to lower life satisfaction. Future research should investigate both directions of causality, as well as the tradeoffs between life values. For instance, in some cultures financial security and materialism may be valued over goals of individual life satisfaction. However, this may have the effect of "crowding out" desires for family. Future research should investigate such possibilities and consider their antecedents for a more complete understanding of materialism, life satisfaction, and fertility rates.

5 Conclusion

By default, negative events and depressive affect, including dissatisfaction with life, tend to stimulate people's need for social support (e.g., Taylor 2007; Detweiler-Bedell et al. 2008). However, in recent years, technological advances and economic globalization have destabilized jobs in numerous industries and increased mobility (e.g., Frank and Cook 1995). So, dynamics that are increasing the need for social support have also reduced the amount of it available (e.g., Putnam 2000). At the same time, the same forces have helped to bring to market new levels of material comfort and service. As such, people in modern societies may be increasingly substituting the status and extrinsic comfort of money and luxury goods for the warmth and support of family and close friends (e.g., Hacker 1967).

A perusal of a popular psychology textbook that broadly covers fundamental areas of human life (from an evolutionary perspective) indicates a jump from chapters on mating strategies to chapters on parenting and kinship (Buss 2008). At least in modern societies, the transition from having mate preferences and attempting to attract mates to providing parental care requires many important events and decisions. In particular, a couple must consider whether to get married and whether to have children. By understanding how mate

preference psychology leads or does not lead to actual long-term commitment (marriage) and children, we may be able to not only better understand how these distinct functional areas connect but also to gain insight into issues that are of particular interest and concern to modern societies.

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